# DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

## LAKE TROPHIC DATA

## MORPHOMETRIC:

Lake: MEADOW	POND	Lake Area (ha):	19.22
Town:	HAMPTON	Maximum depth (m):	0.1
County:	Rockingham	Mean depth (m):	0.1
River Basin:	Coastal	Volume (m³):	9500
Latitude:	42°56' N	Relative depth:	
Longitude:	70°48' W	Shore configuration:	2.06
Elevation (ft	): 4	Areal water load (m/yr):	16.01
Shore length	(m): 3200	Flushing rate (yr <sup>-1</sup> ):	320.3
Watershed are	a (ha): 639.8	P retention coeff.:	0.50
% watershed p	onded: 0.6	Lake type: r	natural

BIOLOGICAL:	17 February 1988	3 August 1987
DOM. PHYTOPLANKTON (% TOTAL) #1	NO SAMPLE COLLECTED	NO SAMPLE COLLECTED
#2		
#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)		
CHLOROPHYLL-A (µg/L)		
DOM. ZOOPLANKTON (% TOTAL) #1	NO SAMPLE COLLECTED	NO SAMPLE COLLECTED
#2		
#3		
ROTIFERS/LITER		
MICROCRUSTACEA/LITER		
ZOOPLANKTON ABUNDANCE (#/L)		
VASCULAR PLANT ABUNDANCE		Sparse
SECCHI DISK TRANSPARENCY (m)		0.1 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)	7.6	
BACTERIA (fecal col., #/100 ml) #1		
#2		
#3		

# SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None Hypolimnion volume (m³): None

CHEMICAL:	EMICAL:  Lake: MEADOW POND  Town: HAMPTON				
	17 February 1988		3 August 1987		987
DEPTH (m)	0.0		0.0		
pH (units)	6.1		7.8		
A.N.C. (Alkalinity)	20.8		55.5		
NITRATE NITROGEN	0.14		< 0.50		
TOTAL KJELDAHL NITROGEN	1.17				
TOTAL PHOSPHORUS	0.026				
CONDUCTIVITY (D mhas/cm)	562.7		19758.0		
APPARENT COLOR (cpu)	130		85		
MAGNESIUM					
CALCIUM					
SODIUM					
POTASSIUM					
CHLORIDE	114		6550		
SULFATE	18		935		
TN : TP	50				
CALCITE SATURATION INDEX					

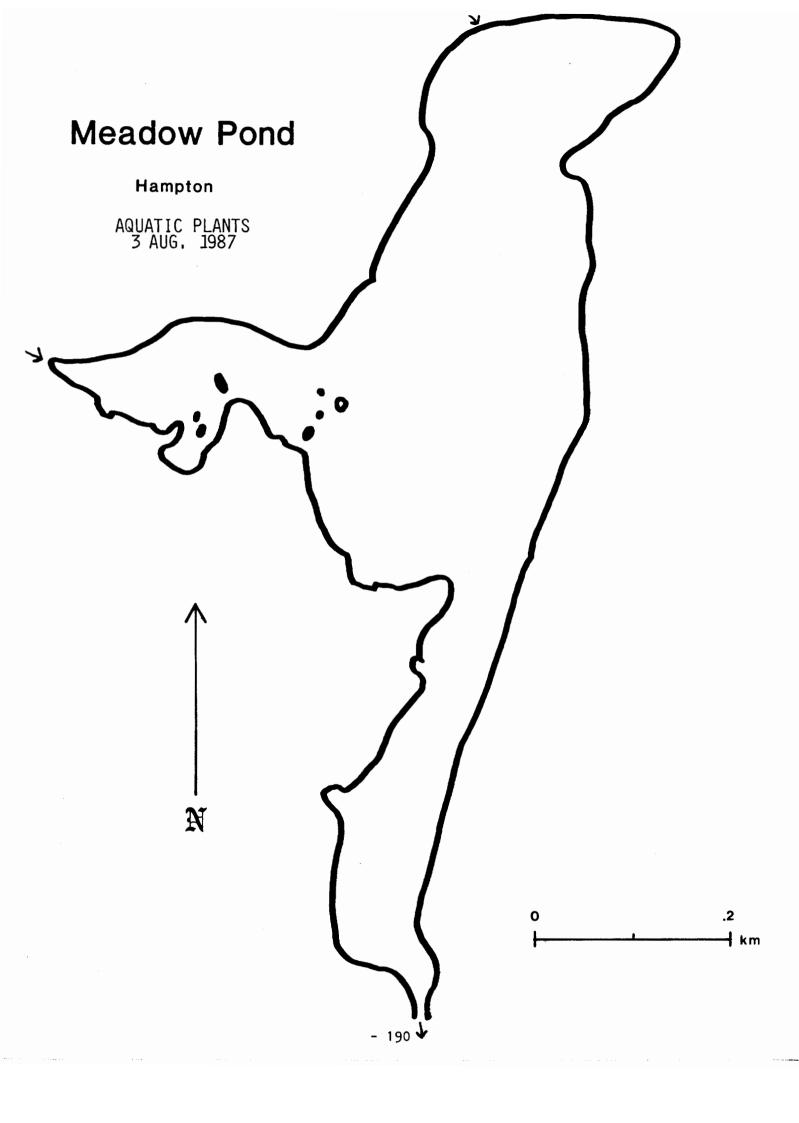
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1987

D.0		S.D.	PLANT	CHL	TOTAL	CLASS
*	*	**	**	**	**	N/C

#### **COMMENTS:**

- 1. Previously called Great Pond.
- 2. This pond is adjacent to the Atlantic Ocean at North Beach. It was flat and shallow with a soft, mucky bottom: about six inches of water over 8 inches of soft flocculent mud.
- 3. The pond is clearly impacted by the ocean, probably from salt spray. There was no obvious channel that would indicate regular tidal influence.
- 4. No soundings were taken, no temperature or oxygen profile was conducted, and no plankton samples were collected because of the shallow water. No trophic classification was assigned.



# AQUATIC PLANT SURVEY LAKE: MEADOW POND DATE: 08/03/87 TOWN: HAMPTON PLANT NAME Key ABUNDANCE GENERIC COMMON Cattail Typha Phragmites communis Reed grass Purple loosestrife Lythrum salicaria Scirpus Bulrush

#### OVERALL ABUNDANCE: Sparse

# **GENERAL OBSERVATIONS:**

1. No plants were present in the open water, but the pond was surrounded by the above listed plants, primarily <u>Phragmites</u>.